**REMARKS**

Claims 1-19 were pending in the subject application. By this Amendment, claim 9 has been canceled, without disclaimer or prejudice, and claim 6 has been amended to clarify the claimed invention. Accordingly, claims 1-8 and 10-19 are now pending, with claims 1 and 6 being in independent form.

Support for the claim amendments can be found in claim 6 of the original application as filed.

Applicant maintains that no new matter is introduced by this amendment. Accordingly, Applicant respectfully requests that this Amendment be entered.

**Information Disclosure Statement**

On page 2 of the September 19, 2005 Office Action, the Examiner stated that the Information Disclosure Statement filed with the application on October 8, 2003 purportedly fails to comply with the provisions of 37 C.F.R. §1.97 and 37 C.F.R. §1.97 and M.P.E.P. §609 because there is allegedly no English abstract or statement of relevance pertaining to the foreign patent documents. The Examiner further stated that the information referred to in the October 8, 2003 Information Disclosure Statement has not been considered as to the merits.

Applicant respectfully submits that English-language abstract of each of the foreign patent references were included with the October 8, 2003 Information Disclosure Statement. As indicated on page 2 of the October 8, 2003 Information Disclosure Statement, concise statements of relevance of the foreign patent references were attached as **Exhibits B and C** to the Information Disclosure Statement. More specifically, **Exhibit B** to the Information Disclosure Statement included concise statements of relevance of Japanese patent application Publication Nos. 63-281345, 63-281343 and 63-281344, and **Exhibit C** to the Information

Disclosure Statement included concise statements of relevance of Japanese Publication Nos. 4-70736 and 11-238488.

Accordingly, Applicant submits that the October 8, 2003 Information Disclosure Statement is in compliance with the provisions of 37 C.F.R. §1.97 and 37 C.F.R. §1.97 and M.P.E.P. §609. Applicant requests the Examiner to consider the October 8, 2003 Information Disclosure Statement and appropriately annotate the Form PTO-1449 (with the Examiner's initial) which was attached as Exhibit A to the October 8, 2003 Information Disclosure Statement to indicate that the references listed on the Form PTO-1449 have been considered by the Examiner.

**Rejection Under 35 U.S.C. §102(b)**

On page 3 of the September 19, 2005 Office Action, claims 1-19 were rejected under 35 U.S.C. §102(b) as purportedly anticipated by U.S. Patent No. 6,353,289 to Ishigami et al. ("the '289 reference").

Regarding claim 1, the Examiner stated that the '289 reference discloses a metal vapor discharge lamp (Fig. 6, 5) including: refractory and light-transmitting hermetic vessel (Fig. 6, 1); a pair of electrodes (Fig. 6, 2) fixed to the hermetic vessel; a discharge medium containing a halide, a rare gas and substantially disusing mercury; and most of light irradiated from the metal vapor discharge lamp having near-infrared wavelengths (750-1100nm) (Fig. 6, 6c).

Regarding claim 2, the Examiner stated that the '289 reference discloses the metal vapor discharge lamp according to claim 1, wherein the halide contains a halide of at least one of potassium (K), cesium (Cs), and rubidium (Rb) (column 11, lines 44-47), which radiate light of near-infrared wavelengths (750-1100 nm).

Regarding claim 3, the Examiner stated that the '289 reference

discloses the metal vapor discharge lamp according to claim 1, further including a visible-light blocking filter (Fig. 4, 7).

Regarding claim 4, the Examiner stated that the '289 reference discloses the metal vapor discharge lamp according to claim 1, wherein a wattage rating of the metal vapor discharge lamp is 100 W or less (column 14, lines 36-26).

Regarding claim 5, the Examiner stated that the '289 reference discloses the metal vapor discharge lamp according to claim 1, wherein a distance between the pair of electrodes falls within a range of 1 mm to 6 mm (column 7, lines 13-22).

Regarding claim 6, the Examiner stated that the '289 reference discloses a metal vapor discharge lamp (Fig. 6, 5) including: a refractory and light-transmitting hermetic vessel (Fig. 6, 1); a pair of electrodes (Fig. 6, 2) fixed to the hermetic vessel; a discharge medium containing first halide and a rare gas (column 7, lines 40-43), the first halide containing a halide of at least one of sodium (Na), scandium (Sc), and a rare earth metal which radiate visible light (380-780 nm) (column 11, lines 18-31); and a ratio of visible-radiation power (380-780 nm) to near-infrared radiation power (750-1100 nm) falling within a range of 0.5 :1 to 4 : 1, the visible-radiation power and the near-infrared radiation power being output when the metal vapor discharge lamp is in an ON state.

Regarding claim 7, the Examiner stated that the '289 reference discloses the metal vapor discharge lamp according to claim 6, wherein the discharge medium includes: a second halide which generates a relatively high vapor pressure and being a halide of at least one metal which emits a visible light less than that emitted by the metal of the first halide (column 6, lines 29-41); a third halide containing a halide of at least one metal which radiates near-infrared light; and the discharge medium

substantially disusing mercury (column 9, lines 5-9).

Regarding claim 8, the Examiner stated that the '289 reference discloses the metal vapor discharge lamp according to claim 6, wherein the discharge medium contains a halide of at least one of potassium (K), cesium (Cs), and rubidium (Rb) (column 11, lines 44-47), which radiate light of near-infrared wavelengths (750-1100 nm).

Regarding claim 9, the Examiner stated that the '289 reference discloses the metal vapor discharge lamp according to claim 6, further including a visible-light blocking filter (Fig. 4, 7).

Regarding claim 10, the Examiner stated that the '289 reference discloses the metal vapor discharge lamp according to claim 6, wherein a wattage rating of the metal vapor discharge lamp is 100 W or less (column 14, lines 36-26).

Regarding claim 11, the Examiner stated that the '289 reference discloses the metal vapor discharge lamp according to claim 6, wherein a distance between the pair of electrodes falls within a range of 1 mm to 6 mm (column 7, lines 13-22).

Regarding claim 12, the Examiner stated that the '289 reference discloses the metal vapor discharge lamp according to claim 6, wherein the rare gas is Xe, Xe of five atoms or more being sealed in the hermetic vessel (column 41, line 1).

Regarding claim 13, the Examiner stated that the '289 reference discloses a projector (Fig. 12) including: a reflector (Fig. 6, 6); a metal vapor discharge lamp (Fig. 6, 5) as specified in any one of claims 1 to 12, the metal vapor discharge lamp being provided on the reflector; and a light control member covering a front surface of the reflector (Fig. 12, 32).

Regarding claim 14, the Examiner stated that the '289 reference discloses the projector according to claim 13, wherein the projector is installed in a vehicle and used as a headlamp (column 1, lines 13-19).

Regarding claim 15, the Examiner stated that the '289 reference discloses the projector according to claim 13, further comprising visible-light blocking means for blocking visible light and passing near-infrared light there through in a high beam mode (Fig. 27, 86a), and means for removing the visible-light blocking means from a radiation direction of the metal vapor discharge lamp in a low beam mode (Fig. 27, 86b).

Regarding claim 16, the Examiner stated that the '289 reference discloses the projector according to claim 13, further comprising a visible-light blocking filter (Fig. 4, 7) provided on at least one of front and rear surfaces of the light control member.

Regarding claim 17, the Examiner stated that the '289 reference discloses the projector according to claim 16, wherein the projector is installed in a vehicle and used as a headlamp (Fig. 12).

Regarding claim 18, the Examiner stated that the '289 reference discloses the projector according to claim 17, wherein the visible-light blocking filter blocks visible light and passes near-infrared light there through in a high beam mode (Fig. 27, 86a), and further comprising means for removing the visible-light blocking filter from a radiation direction of the metal vapor discharge lamp in a low beam mode (FIG. 27, 86b).

Regarding claim 19, the Examiner stated that the '289 reference discloses a metal vapor discharge lamp lighting device (Fig. 6, 5) including: a metal vapor discharge lamp as specified in any of claims 1 to 12; and a lighting circuit which supplies a current

three times or more a rated lamp current after the metal vapor discharge lamp is lit, and reduces the current with a lapse of time (column 17, lines 65-67 thru column 18, lines 1-7).

Applicant maintains that the '289 reference does not render the claimed invention unpatentable because the '289 reference fails to disclose or suggest each and every element of the claimed invention.

This application relates to a metal vapor discharge lamp configured for near-infrared radiation (such as can be used in monitoring or detection systems).

For example, claim 1 is directed to metal vapor discharge lamp comprising a refractory and light-transmitting hermetic vessel, a pair of electrode fixed to the hermetic vessel, a discharge medium sealed in the hermetic vessel. The discharge medium contains a halide, a rare gas and substantially disusing mercury. Most of the light irradiated from the metal vapor discharge lamp has near-infrared wavelengths (750 - 1100 nm).

Claim 6 is directed to a metal vapor discharge lamp comprising a refractory and light-transmitting hermetic vessel, a pair of electrode fixed to said hermetic vessel, a discharge medium sealed in the hermetic vessel, and a visible-light blocking filter. The discharge medium contains a first halide and a rare gas, with the first halide containing a halide of at least one of sodium (Na), scandium (Sc) and a rare earth metal which radiate visible light (380 - 780 nm). A ratio of visible-radiation power (380 - 780 nm) to near-infrared radiation power (750 - 1100nm) falls within a range of 0.5 : 1 to 4.0 : 1. The visible-radiation power and the near-infrared radiation power are output when the metal vapor discharge lamp is in an ON state.

The '289 reference does not disclose or suggest such metal vapor

discharge lamps configured for near-infrared radiation.

The '289 reference is directed to metal halide discharge lamps for generating visible light, while avoiding use of mercury.

Fig. 6 of the '289 reference shows a view of a part of a lamp for a liquid crystal projector which includes a multi-layered interference reflecting film. The bulk of the radiation emitted from the lamp is visible light.

Fig. 4 of the '289 reference shows an optical system of a RGB color separation type liquid crystal light projector, including an ultraviolet-infrared light cut filter. Again, the bulk of the radiation emitted from the projector is visible light.

The '289 reference does not disclose or suggest, however, a metal vapor discharge lamp wherein most of the light irradiated from the metal vapor discharge lamp has near-infrared wavelengths (750-1100nm), as provided by claim 1. Similarly, Applicant does not find teaching or suggestion in the '289 reference of a metal vapor discharge lamp comprising a visible-light blocking filter.

Regarding claims 2-5, Applicant respectfully points out that claims 2-5 depend on and include all the limitations of claim 1, and therefore claims 2-5 are patentable at least for the reasons set forth above with respect to claim 1.

Regarding claims 7, 8 and 10-12, Applicant respectfully points out that claims 7, 8, and 10-12 depend on and include all the limitations of claim 6, and therefore claims 7, 8 and 10-12 are patentable at least for the reasons set forth above with respect to claim 6.

Regarding claims 13-19, Applicant respectfully points out that claims 13-19 depend on, and include all the limitations of, claims 1 and 6, and therefore claims 13-19 are patentable at least for the reasons set forth above with respect to claims 1 and 6.

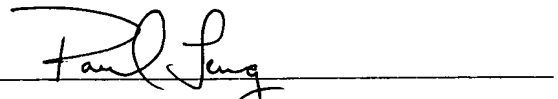
In view of the claim amendments and remarks hereinabove, Applicant maintains that claims 1-8 and 10-19 are now in condition for allowance, and earnestly solicits the allowance of the application.

If a telephone interview would be of assistance in advancing prosecution of the subject application, Applicant's undersigned attorneys invite the Examiner to telephone them at the telephone number provided below.

If a petition for a further extension of time is required to make this response timely, this paper should be considered to be such a petition.

No fee, is deemed necessary in connection with the filing of this Amendment. However, if any additional fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

December 13, 2005
Date

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